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(56) Cited References: Kokai 6-121701 (JP, A)

(54) [Title of the Invention] **Electrically powered toothbrush**

(57) [Claims]

[Claim 1] An electrically powered toothbrush comprising:

a drive motor housed within a case;

a drive shaft supported within said case and displaceable in the axial direction;
a first motion conversion mechanism for converting rotation of said drive motor into reciprocating motion and transmitting same to said drive shaft;
an attachment coupled with said drive shaft;
a rotating brush head rotatably attached to the distal end of said attachment;
an extension bar housed within said attachment, and that when said attachment is coupled with said drive shaft, couples with a fixed shaft fixed located within said case, so as to be capable of relative motion with respect to said attachment,
a rack provided to said extension bar;
and a pinion for meshing with said rack, provided on the rotating shaft of said brush head; and

restricting means provided on the back side of said rack, for preventing said rack from shifting to the opposite side from said pinion.

[Claim 2] The electrically powered toothbrush according to claim 1 wherein said restricting means is a rolling bearing.

[Claim 3] The electrically powered toothbrush according to claim 2 wherein ribs for engaging the extension bar are provided at the front and back ends of said rolling bearing.